EXHIBIT S

MP4011003887

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Actuary

Re US PLI 1991 Dividend Scales

In pricing the 1991 Dividend Scales we must balance the optimization of several factors. As discussed in your product pricing memorandum of May 30, 1990, these factors are:

(1) Short-term profit
(2) Long-term profit
(3) Equity
(4) Competitive strategy
(5) Theory

As we discussed subsequently, the identification of equity as only one of five factors was not intended to suggest that we would ever intentionally develop final prices that are not equitable.

In the remainder of this memorandum I will discuss how these elements specifically relate to the 1991 Dividend Scales for both Industrial and Ordinary Life. My intent is to provide the information necessary for a strategic management decision to be made regarding the level of dividends.

ORDINARY

1990 Dividend Scales

Exhibit A is Marian Zeldin's Dividend Report to Management on the 1990 Scales. To briefly summarize, the intent of the 1990 Dividend Scale was to pay out the same aggregate level of dividends as a continuation of the 1989 Dividend Scale would have produced, but to rebalance expense charges, interest credits and mortality charges to more accurately reflect our emerging experience. Furthermore, we wanted to refine the pricing on 1982-1986 business to bring the dividend formulas in line with those being used on the remainder of the business. However, due to competitive pressures, we pegged the 1982 and later business to the 1989 Dividend Scale.

Additionally, we intended to refine the theory on decreasing term policies but, in many individual cases, this produced unacceptable discontinuities in the dividends payable from 1989 to 1990. Therefore, we kept the formula intact but did reflect our revised experience factors. This was a case in point where optimizing theory did not work in reality.

Exhibits B-1, B-2 and B-3 provide a more quantitative insight into the intended and actual 1990 pricing.

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(1) Exhibit B-1 shows the scale change that was intended, (prior to the pegging described above) as compared to a continuation of the 1989 Scale.

(2) Exhibit B-2 shows the actual 1990 Scale as compared to a continuation of the 1989 Scale.

(3) Exhibit B-3 shows the actual 1990 Scale as compared to the intended 1990 Scale for 1991 payable dividends.

All results are broken down by series and rate block.

Exhibits B-1 and B-2 show that the actual 1990 Dividend Scale will result in about $15 million more in dividends being paid in 1990 than was originally intended. The majority of this change is a result of the pegging of 1982 and later business. Exhibit B-3 demonstrates that if we could implement the intended 1990 Dividend Scale in 1991 rather than continue the actual 1990 Dividend Scale, we would reduce the payout of dividends by $18 million, with all the reductions coming from 1974 and later business.

In Exhibits B-1, B-2 and B-3, the total level of dividends includes dividends on Base Insurance and dividends on Additional Insurance (AI). In Exhibits B-6, B-7 and B-8 (corresponding to B-1, B-2 and B-3) we expand the analysis to include other pieces of Ordinary business that can be considered "participating" from an analytical perspective. In addition to dividends on Base Insurance and AI, these exhibits include interest credited on dividends left to accumulate with interest (DWI) less interest charged on policy loans. (We are treating loans here as a "negative coverage".

Scale	Interest Rate on DWI
1989	7.75%
1990 Actual	8.00%
1990 Intended	8.00%

Short-Term Profit

The preceding discussion related the different dividend scales without considering the effects on earnings. Exhibits C-1, C-2 and C-3 (corresponding to B-1, B-2 and B-3) compare each scale's impact on calendar year earnings. For these analyses, we measure contribution to earnings by projecting "Aggregate Marginal Profits" for inforce business.

"Aggregate Marginal Profits" can be defined as the amount available to cover expenses plus taxes and profit, provided that investment returns are equal to some fixed rate (9.50% in these exhibits). The key assumptions used are as follows:

(1) We incorporate 200,000 cells to represent MLIC Traditional Ordinary business. The projection includes Base Insurance and Additional Insurance.

(2) Extended Term, Accidental Death Benefit, Disability Waiver and Child Term Rider are excluded.

(3) The projection of investment assets and investment income is very simple. Essentially, a flat 9.50% is applied to the GAAP Reserve and the yearly Cash Flow.

(4) The only expenses being projected are commissions and premium taxes, which can be directly associated with policy cash flows.

(5) The ultimate policy lapse rate assumed is 5%.

For greater refinement, the projection can also be extended to Dividends With Interest and Policy Loans. We treat loans as a "negative coverage" (as in Exhibits B-6, B-7 and B-8) and loan balances as "negative reserves". These are presented in Exhibits C-6, C-7 and C-8.

I think when looking at these exhibits it is important to focus on the relative magnitude of the figures rather than the absolute numbers themselves. In 1990, the actual 1990 Scale contributes $18 million less to earnings than would have occurred under the intended 1990 Scale. In 1991, if we could implement the intended 1990 Scale rather than the actual 1990 Scale we could increase earnings (all other factors remaining constant) by about $15 million.

<u>Long-Term Profit</u>

When considering the relative merits of implementing different scales, we need to consider the long-term pattern of earnings in addition to the short-term view. Present value is a convenient measure for this comparison although it certainly does not replace year by year cash flow analysis. I have included multiple year projections in Exhibits E, F and G.

Exhibits D-6, D-7 and D-8 show the present value of "aggregate marginal profits" over the remaining lifetime of the inforce under the different scales. Present values are calculated at 9.50% interest and include Base Insurance + AI + DWI - Policy Loans. The bottom line here is that if we implement the intended 1990

Scale rather than the actual 1990 Scale we generate $71 million more in marginal profits on a present value basis. All of this gain is generated from 1974 and later issues. In particular, the present value of the cost of continuing the pegging on 1982-1986 business is about $47 million.

We can increase profitability by taking actions to improve any of our experience elements. Exhibits C-9 and D-9 show the effect of a 1% improvement in lapse rates on profitability under a continuation of the 1990 Scale. Exhibits C-10 and D-10 show the effect of increasing our earned rate from 9.50% to 10.00%. (Present values are still taken at 9.50%.) The results are as follows:

Improvement	Increase in 1991 Margin	Increase in PV of Future Margins
1% Lapse	19%	26%
50 BP Interest	0.15%	9%

We have not yet included 1990 issues in any of our analyses. As this block was priced using the same experience assumptions as recent business, we would expect it would show the same patterns of results as the 1987-1989 Block. Within the next week or two, we will have incorporated 1990 issues.

Practical Considerations

If we decide to decrease the 1991 Dividend Scale for selected blocks of business, we can minimize complaints by ensuring that no policyholder will see a decrease in his/her dividend paid. I call this "lag pegging." We can have the procedures in place to do this with a little more developmental work. It's a little bit tricky and deviates from theory, but we can certainly implement it.

We must also be careful to realize that an aggregate increase in dividends for a block does not necessarily imply that every policyholder within that block will see an increase. So we must carefully check for any necessary "lag pegging" if we decide to make a change in the 1991 Dividend Scale.

Furthermore, if we do decide to reduce the 1991 Dividend Scale (even if we do not allow a policyholder's dividend to fall below that which was paid in the previous year), we should be prepared to receive numerous complaints from both policyholders and agents. I have received letters from policyholders who have kept their original dividend illustrations and want any negative deviations explained. We should also keep in mind that there are increased customer service costs in answering complaints.

Alternatives: 1991 Ordinary Dividend Scale
Based on the above discussion, it seems that we have several alternatives for the 1991 Dividend Scale.

(1) We can continue the 1990 Scale, as it is currently in place.

(2) We can restructure the Scale so that we will be closer to the intended 1990 Scale. This will involve fine tuning the pegging of the 1982 & later business. This restructuring will not necessarily achieve the entire $18 million difference in payable dividends between the actual and intended 1990 Scales.

In either case (but particularly in the former), we will want to seriously examine the issue of loss recognition, through reserve strengthening and/or a "writeoff" of DAC. GAAP theory calls for loss recognition now rather than waiting for emerging lower profits. Operationally, we can achieve this by increasing our funds and crediting lower than 10.00% on recent issues.

INDUSTRIAL

Last year we continued the 1989 Dividend Scale for Industrial into 1990. There were two reasons for this. First, expense and investment income patterns were stable. Second, we were making significant improvements to our systems capability and were expecting to be finished in time for the 1991 Scale. These enhancements have been made and will facilitate implementing any changes to the 1991 Scale.

Now that we have the necessary systems capability, we intend to apply the same theory which we use for Ordinary business to Industrial. This will result in the same dividend formula being applied to practically all of PLI business. The question then becomes what level of expense charges and interest credits should be built into the dividend scale and what effect will this have on both the aggregate level of dividends and on an individual policyholder basis? Furthermore, what level of interest credits and expense charges is equitable with respect to what we have been crediting and charging to Ordinary business? I have omitted mortality charges as we do not expect mortality experience to change significantly.

In 1989 we paid $71 million in Industrial dividends. According to the plan for 1990, this figure will remain the same for 1990. The interest rate currently being credited on Industrial business is 7.00%. If we were to bring this rate up to 8.35% (the rate currently being credited on comparable Ordinary business), dividends would increase by roughly $40 million. This would exceed 10% of the 1991 planned GAAP earnings for P.I. Career Agency, and would itself be a significant increase in the level of Industrial dividends.

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We must also consider expense charges. Although actual premium has been waived on the Industrial business, the current scale applies different expense charges, depending on whether or not the policy is on premium waiver, or is actually paid-up. These "per policy" charges can be compared to the Ordinary business charges.

	Ord Charge	Avg Ind Charge	Number Ind Pols	Avg Pol Size	Impact of Charging Ord Charge
Prem Paying	$14.06	$7.71	418,400	$595	$2,657,000
Paid Up	$13.62	$1.74	4,154,500	$429	$49,355,000
Total			4,572,900		$52,012,000

Thus, if we were to increase the Industrial expense charges to the same level as the Ordinary, we would reduce Industrial dividends by roughly $52 million. But, does it make sense to apply a $14 charge on policies with face amounts of only $400? In the 1990 Scale, we limited per policy expense charges on Account Book Ordinary (comparable to Industrial) to less than the full amount, and we would probably take the same approach here.

Overall, our analytical control over the Industrial business is not yet at the level that exists for Ordinary. As we establish this control over the next month, we will be able to make a more definitive assessment. At this point, our sense is that the expense and interest elements should be rebalanced, but we will continue to evaluate the aggregate change in the amounts payable.

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